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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/090,713

03/01/2002

Michael Minneman

391130

8772

30955

7590

10/19/2005

LATHROP & GAGE LC
4845 PEARL EAST CIRCLE
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BOULDER, CO 80301

EXAMINER

PHAM, HOA Q

ART UNIT

PAPER NUMBER

2877

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/090,713	Applicant(s) MINNEMAN ET AL.	
	Examiner Hoa Q. Pham	Art Unit 2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33, 62 and 73-88 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4, 10, 11, 20-29, 62, 73, 74 and 86-88 is/are rejected.
- 7) ☒ Claim(s) 2, 3, 5-9, 12-19, 30-33 and 75-85 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election of species (a) (claims 1-33 and 62) in the reply filed on 7/25/05 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Drawings

2. The drawings filed on 3/1/02 have been approved.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 4, 7, 10-11, 74, 20-23, 29, 62, 73, 86 and 88 are rejected under 35 U.S.C. 103(a) as being unpatentable over Volz et al (6,501,773).

Regarding claims 1, 4, 7; Volz et al discloses an apparatus including: a housing (not show), a plurality of laser source channels each including a laser source card having a laser source (102), a modulation controller (110, 112) and a signal pathway connecting the modulation controller with each of the laser source channels (102) (figure 1A). Volz et al does not explicitly teach that at least eighteen, forty, or one

Art Unit: 2877

hundred of laser source channels in the housing; however, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include in the device of Volz et al at least eighteen, forty or one hundred of laser source channels because Volz suggests the use of a plurality of laser source channels such as from LASER 1 – LASER N (see figure 1).

Regarding claims 10,11 and 74, Volz uses an optical DWDM or WDM system, thus it is inherently that a MUX is included in the system.

Regarding claims 20-23, Volz teaches the use of modulation controller (110, 112) and it is inherent that all modulation is including a plurality of function generators that are each capable of generating waveforms for use at the laser source channels.

Regarding claims 29 and 88, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include in Volz et al a data input device for the purpose of reprogramming the device with software upgrades so that the system is always keep up to date.

Regarding claim 62, it is inherent that all the optical test system must be checked before shipping to the customer.

Regarding claim 73, see elements 118 and 120 of Volz which connected to the controller (112).

Regarding claim 86; see switching mechanism (108) in figure 1 of Volz et al.

5. Claims 24-27 and 87 are rejected under 35 U.S.C. 103(a) as being unpatentable over Volz et al in view of Sanchez (6,446,867).

Regarding claims 24-25 and 87, Volz et al discloses all the features of the present invention except for the a gain block that is programmably configurable to adjust an amplitude of the waveforms and a bypass mechanism that is programmably configurable to bypass the gain block; however, such the features are known in the art as taught by Sanchez. Sanchez discloses the digital signals (column 1, lines 57-60), ground and gain block (242) for adjusting amplitude of waveforms (column 8, lines 36-45). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Volz et al by having digital signals and gain block as taught by Sanchez because those of ordinary skill in the art will recognize that such modification would improve the accuracy of the optical test system. In addition, Sanchez teaches the external source to drive the laser (figure 4).

Regarding claims 26 and 27, a protocol selected from the group consisting of RS-232, GPIB, and Ethernet is well known in the art; thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to including in the master controller of Volz et al a protocol selected from the group consisting of RS-232, GPIB, and Ethernet because it does not matter what type of protocol, the device would function in the same manner.

Allowable Subject Matter

6. Claims 2, 3, 5-6, 8-9, 12, 13, 75, 14-19, 85, 76-81, 82-84 and 30-33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in

Art Unit: 2877

independent form including all of the limitations of the base claim and any intervening claims.

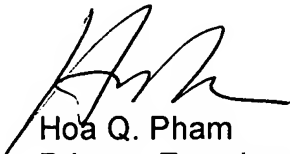
7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Following references are relative to the laser source channels: Minneman (6,822,983), Banaska et al (5,918,194), Rhee et al (6,606,178), Liang et al (5,604,757), Kish et al (2003/0095736 and 2003/0095736).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoa Q. Pham whose telephone number is (571) 272-2426. The examiner can normally be reached on 7:30AM to 6 PM, Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on (571) 272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2877

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Hoa Q. Pham
Primary Examiner
Art Unit 2877

HP
October 17, 2005